

REMARKS

Applicants have carefully examined the Office Action of November 2, 2009, in which claims 1-50 are pending and have been rejected. Applicants respectfully request further examination in light of the above amendments and following remarks.

Claims 1, 4, 10, 13, 14, 19, 30, 38, 40 and 42 were amended, support for which may be found, for example, in Figures 1 and 8 and the corresponding portions of the specification. No new matter has been introduced.

Claims 4 and 12 have been rejected under 35 USC 112, second paragraph, as being indefinite. Applicants have amended claims 4 and 12 as suggested by the examiner and request the withdrawal of the rejection.

Claims 1-13, 28 and 32-42 were rejected under 35 USC 102(b) as being anticipated by Melzer, USPN 6,280,385. Applicants respectfully traverse the rejection because Melzer does not disclose each and every element of the claimed invention.

For example, claim 1 recites “wherein the conductive path defines a series of coiled portions spaced from each other and includes a series of non-coiled elements extending parallel to the elongate shaft wherein a first non-coiled element is disposed between a first coiled element and a second coiled element.”

Melzer does not disclose a conductive path that includes first and second coiled portions spaced apart from each other with a first non-coiled element disposed therebetween. The closest that Melzer may be said to come is in Figure 7, where element 6 is disposed between coils 21 and 22. But element 6 is a dielectric and thus incapable of being part of a conductive path. See col. 10, l. 66 through col. 11, l. 2.

As claims 2-13, 28 and 32-37 depend directly or indirectly from claim 1 and contain additional elements, applicants submit that these claims are likewise allowable over Melzer.

As independent claims 38 and 40 also recite “wherein the conductive path defines a series of coiled portions spaced from each other and includes a series of non-coiled elements

extending parallel to the elongate shaft wherein a first non-coiled element is disposed between a first coiled element and a second coiled element,” Applicants believe that these claims and claims 39 and 41, which depend therefrom, are allowable over Melzer for the reasons discussed above.

Claim 42 has been amended to recite “an electrically conductive path, a first portion of the path extending spirally in a first direction around the central longitudinal axis of ~~along~~ the shaft, and a second portion of the path extending spirally in a second direction counter to the first direction around the central longitudinal axis of ~~along~~ the shaft, the conductive path being defined at least in part by a conductive coating.” Melzer does not disclose such a configuration, and for at least this reason claim 42 is believed to be allowable over Melzer.

Claims 16 and 18 were rejected under 35 USC 103(a) as being unpatentable over Melzer. Applicants respectfully traverse the rejections.

The Examiner asserts, without providing any art, that providing a fractal capacitor (claim 16) and tuning the LC circuit to the Larmor frequency of hydrogen (claim 18) would have been obvious to one of ordinary skill in the art as a routine adjustment to the system of Melzer. Based on the prosecution record, applicants respectfully disagree. There is nothing in the record to suggest that either modification would have been a routine adjustment to Melzer. Applicants accordingly believe that both claims 16 and 18 are non-obvious over Melzer.

Claims 19-27, 29-31 and 43-50 were rejected under 35 USC 103(a) as being unpatentable over Melzer in view of Zhong, US 2003/0100830. Applicants respectfully traverse these rejections.

Melzer is cited as teaching all the limitations of claim 1 but not teaching the use of MRI contrast agents. Zhong is cited as teaching various contrast agents and ultrasonic imaging means.

Claims 19-27 and 29-31 are believed to be allowable for at least the reason that they depend from claim 1, which Applicants submit is allowable, and contain additional elements.

Further, Zhong is silent as to any particular arrangement of the contrast agents on the medical device, other than as a coating on the device. Thus the combination of claim 19, where

“a MRI contrast agent [is] disposed in a cylindrical band having a proximal edge distal of the first coiled element and a distal edge proximal of the second coiled element” is not suggested by Melzer in view of Zhong. Likewise, the cited art fails to suggest the invention of claim 29, where “a plurality of contrast agents [are] arranged in a regular pattern where the plurality of contrast agents alternate with the series of coiled portions” or claim 30 where “the contrast agents comprise a T₁ relaxation agent and a material capable of generating a magnetic susceptibility artifact wherein the T₁ relaxation agent is disposed in a first series of marker bands and wherein the material capable of generating a magnetic susceptibility artifact is disposed in a second series of marker bands, wherein the second series of marker bands has a different composition than the first series of marker bands and wherein the first series of marker bands alternate with the second series of marker bands.” The cited prior art does not suggests such arrangements of the components, which improve the ability of the medical devices to be visualized and to be visualized easily using a number of different techniques.

Independend claims 43 and 48 contain similar elements, which are not taught or suggested by Melzer in view of Zhong. Claim 43 recites “a first plurality of portions comprising a first contrast agent; and a second plurality of portions comprising a second contrast agent different than the first contrast agent, *wherein the first and second pluralities of portions are arranged in a regular pattern*” and claim 48 recites “a first plurality of portions comprising a first contrast agent; and a second plurality of portions capable of generating a signal void, *wherein the first and second pluralities of portions are arranged in a regular pattern*.” Emphasis added. These arrangements of the various visualization elements are not suggested by or obvious over the cited prior art.

Applicants therefore respectfully submit that claims 19-27, 29-31 and 43-50 are patentable over Melzer in view of Zhong for at least the reason discussed above, and accordingly request withdrawal of this rejection.

Conclusion

Further examination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, issuance of a Notice of

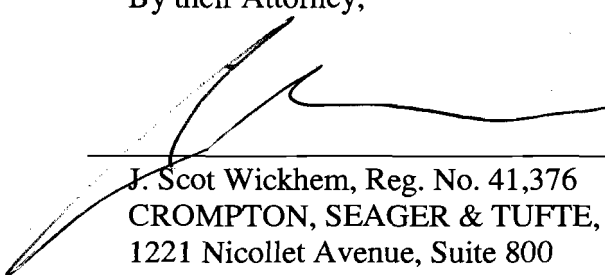
Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,
SCOTT R. SMITH et al.

By their Attorney,

Date: _____

2-2-2010



J. Scot Wickhem, Reg. No. 41,376
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, Minnesota 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349